




Yagmur GULEC

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PERSONAL AND COURSE PROJECTS

Monte Carlo Simulation of Percolation | *Python, Plotly* | | *Heroku*

- Developed a Monte Carlo simulation web app for modeling percolation

Final Project for Database Software Development | *Python, Flask, PostgreSQL* | | *Heroku*

- Developed a full-stack web application for publishing events and sending notifications to those who subscribed to the events in case they did not fill the requirements before two days the event date
- Heroku deployment
- SQL commands for CRUD operations implemented by psycopg2

Imputation of Missing Data | *Python, NumPy, Iterative Soft-Thresholding Algorithm* |

- Python NumPy matrix operations
- Iterative Soft-Thresholding Algorithm
- Implemented for Pattern Recognition's Final Project

EXPERIENCE

Natural Language Developer Intern | *Python, NLTK, BeautifulSoup*

Ubineer, Toronto, Canada

March 2023–May 2023

Automation of data extraction from financial reports by chunk functions and regex operations

P.h.D. Researcher in Mech. Eng. | *C++(OOP), ImageJ*

Universite de Sherbrooke, QC, Canada

Jan. 2019– Sept. 2021

Numerical modeling of the physics of a single vapor bubble with C++ (OpenFOAM)

Implementation of sub-models such as dynamic contact angle models with C++

Image processing (thresholding and watershed) of vapor bubble images by ImageJ Java Plugin

Teaching assistant in Mech. Eng. | *Fluid Dynamics, Communication, Teaching*

Izmir Institute of Technology, Izmir, Turkey

Feb. 2015–Jan. 2019

Assisted for undergraduate level courses such as Numerical methods and Fluid Dynamics. Evaluated assignments and experimental reports. Taught in recitation and experiments

Receptionist | *Communication*

Hotel Fantasia Aydin, Turkey

May 2015–Sept 2015

Processed check-in and check-out of foreign tourists. Welcomed tourists.

Mechanical Engineer | *3D design, Technical drawing, Communication*

HAUS Centrifuge Technologies, Aydin, Turkey

Febr. 2011 – Sept. 2011

3D design of centrifugal machines (seperators) and preparing technical drawings by SolidWorks

LANGUAGE SKILLS

English: Full professional working proficiency

French: Limited working proficiency

Turkish: Native

EDUCATION

Bishop's University

January 2022–January 2024

Master of Science in Computer Science

Current GPA: 88/100

RELEVANT COURSEWORK

Courses: Database Software Design, Pattern Recognition, Data Visualization, Image analysis, Data Structures, Statistical Learning, Discrete Math, Volumetric Image Analysis

Online Courses: Machine Learning Specialization (DeepLearning.AI), Computer Science for Web Programming (HarvardX)